# A SPECIAL BIBLIOGRAPHY TO ASSIST IN CITY PLANNING, EDUCATIONAL AND SOCIAL SERVICES AND OTHER AREAS OF CONCERN IN CITY GOVERNMENT



**Prepared for:**

# 1977 CONGRESS OF CITIES AND EXPOSITION

FORWARD

In recent months there has been a real surge of interest in
shaping federal programs to meet the needs of state and local
governments.  It was a campaign promise of President Carter
and steps to follow through were apparent even before the
Inauguration.  Secretary Juanita Kreps of the Department of
Commerce and a number of other cabinet-level appointees met
with committees of the U.S. Conference of Mayors just before
the Inauguration and the National League of Cities and the
National Association of Counties in subsequent months.  The
message has been repeated:  "We're listening" and "We care."

The National Technical Information Service, a unit of the
Department of Commerce, has designed a system to meet the
practical problem-solving needs of local governments as infor-
mation users as well as information sources.  NTIS' approach
has been to differentiate between hard core problem-solving
technology and general research and to work toward the estab-
lishment of an information exchange center that would acquire
pertinent information generated outside state and local govern-
ments.

Only the NTIS system includes Federal, international and other
non-proprietary information carefully selected for direct
applicability in local government problem-solving situations
where timeliness and practicability are vital.

This bibliography was prepared for the 1977 Congress of Cities
and Exposition.  It lists unique information products specially
selected from over one million items.  The reports include such
broad subjects of interest as social concerns, energy conser-
vation, urban administration and planning, financial management,
land use, transportation systems, public administration and
government and solid waste pollution and control.  All reports
are available in paper copy or microfiche.

Problem-solving computer software for state, county and city
governments is also listed.  Topics include Municipal Information
Systems, City Games, Forecasting Municipal Water Requirements,
and Health Care Delivery Concepts.  They are all available for
sale or lease.

Other information products and services are available and
described in the NTIS Information Services Catalog.  It is free
to you.  Just cite the publishing code (PR-154) and mail your
request to:  NTIS, 5285 Port Royal Road, Springfield, VA 22161.

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# SPECIAL RESEARCH REPORTS FOR LOCAL GOVERNMENTS

## USING AN IMPACT MEASUREMENT SYSTEM TO EVALUATE LAND DEVELOPMENT

Urban Inst., Washington, D.C.

The report identifies practical ways for urban planners to
assess the impacts of land development on a local economy, the
environment, public and private services, and aesthetic, cultural
and social conditions of a community.  Where possible, impacts
are described in terms of end results to people.  The report
identifies the state of the art of practical measurement proce-
dures available as well as sets forth an illustrative system of
measures for assessing impacts of proposed developments, identi-
fying data collection and analyses procedures for each measure.
The report also reflects the results of initial testing of the
measurement system undertaken with three communities:  Phoenix,
Arizona; Indianapolis, Indiana; Montgomery County, Maryland.

Order Number:  PB-263 780/9ST     NTIS Prices: PC $6.50/MF $3.00

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## PARTNERSHIP WITHIN THE STATES:  LOCAL SELF-GOVERNMENT IN THE FEDERAL SYSTEM

Illinois Univ. at Urbana-Champaign, Inst. of Government and
Public Affairs.

In both philosophical and practical terms, questions of federalism
and the states have emerged as major issues in American public
debate.  A group of distinguished participants, drawn from
academia, government, and other spheres, was asked in 1975 to
consider these and other questions:  Is the federal relationship
established by the Constitution the model for state-local
relations.  Historically, are states unions or federal systems,
and what is the implication of this for the American federal
system.  What are the causes and consequences of state variations
in the pattern of state-local relations.  How have states used
federal legislation, passthrough programs, and fiscal incentives
to govern their localities.  What is and what should be the locus
of subnational initiative in a federal system.  Is 'home rule'
essentially regressive in the face of modern metropolitan society.
Discussions of these and related questions are presented in this
report.

Order Number:  PB-269 834/8ST     NTIS Prices: PC $11.75/MF $3.00

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## SAMPLING METHODS FOR CITIZEN ATTITUDE SURVEYS

Allentown Urban Observatory, PA.

This report is an attempt to provide the city of Allentown
with a sampling methodology for telephone surveying that would
define the parameters of the optimum samples for given issues.
The report discusses work done on establishing a sequential
sampling model using a logistic distribution function.  After
initial results are recorded, the model is used to select the
next sample and the sample is taken by applying the underlying
probability to it to determine which response is observed.
This process is repeated as often as the user specifies to
get his final estimate.

Order Number:  PB-263 128/1ST     NTIS Prices: PC $5.25/MF $3.00

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## THE URBAN IMPACT OF FEDERAL POLICIES: THEIR DIRECT AND INDIRECT EFFECTS ON THE LOCAL PUBLIC SECTOR

Rand Corp, Santa Monica, California

There is growing recognition by researchers and practitioners
alike that federal urban policy must be defined much more
broadly than it has been in the past.  The federal influence on
cities involves much more than a handful of explicitly urban
programs--more even than the whole array of federal programs
that channel funds to urban jurisdictions and their citizens.
Spokesmen for the urban public interest groups now refer to the
'implicit' or 'hidden' urban policy of the federal government.
These terms are meant to encompass not only expenditure programs,
but a spectrum of federal actions ranging from tax policy to
macroeconomic policy to regulation of business to enforcement
of the civil rights laws.  But although this broadened view of
federal urban policy has become established in rhetoric, it has
not yet been assimilated into policymaking, policy analysis,
or policy-proposing processes.

Order Number:  AD-A043 262/5ST     NTIS Prices: PC $4.50/MF $3.00

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## LAND USE PLANNING IN THE STATE OF WASHINGTON: THE ROLE OF LOCAL GOVERNMENT

Washington State Office of Community Development, Olympia, Wash.

The town of Winthrop located in the Methow Valley, Okanogan
County is the scene of major land use changes with the opening of
the North Cascades Highway, a proposed major ski resort development,

and open pit copper mining operations.  Impacts are already
evident upon housing vacancies, land values, school enrollment,
employment and the sensitive environment.  Local officials are
faced with the challenge of managing the growth as it occurs
in order to avoid the possible harmful effects of rapid develop-
ment.

Order Number:  PB-268 831/5ST.    NTIS Prices:  PC $6.00/MF $3.00

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ASSESSING PERSONNEL MANAGEMENT: OBJECTIVES AND PERFORMANCE
INDICATORS, A GUIDE FOR CITY OFFICIALS

Georgetown Univ., Washington, D.C., Public Services Lab.

The purpose of this guide is to help elected officials, city
managers, and administrators assess personnel management within
their cities.  Personnel management refers to the broad set
of procedures and policy decisions that relate to the people a
city employs, the way they are employed, and the work they do.
This guide identifies objectives and related measurements for
assessing progress toward meeting the objectives.  Section I,
Personnel Management in Perspective, discusses the assessment
of personnel management, people involved in personnel manage-
ment, costs of personnel management, and costs of assessing
personnel management.  Section II, How to Assess Personnel
Management, discusses organization for personnel management
studies and development of a statement of objectives and
standards of measurement.  Section III, Exhibits, discusses
the assessment of progress toward the achievement of basic
personnel management objectives, and the illustrative sub-
objectives of personnel management and indicators of progress
toward their achievement.                              .

Order Number:  PB-267 964/5ST    NTIS Prices: PC $4.50/MF $3.00

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A GUIDE TO REDUCING--ENERGY USE BUDGET COSTS

National Association of Counties, Washington, D.C.

This report provides city and county governments with straight-
forward, practical information needed to reduce energy costs
and save taxpayers money.  Local government officials will find
the basic 'whys,' 'how-to's,' and 'by whoms' of successful
energy management carefully spelled out, so that specific
programs can be selected and tailored to a specific community.

Order Number:  PB-260 632/5ST    NTIS Prices:  PC $6.00/MF $3.00

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## MEASURING THE EFFECTIVENESS OF SOLID WASTE COLLECTION

Durham Urban Observatory, N.C.

This report describes an overall conceptual framework for the
evaluation of solid waste collection efforts.  Emphasis is
placed on evaluating the effectiveness of these efforts.  This
is defined to be composed of a user satisfaction component and
a community effects component.  The former is measured by a
citizens' questionnaire, while the latter is measured by visual
inspection of street cleanliness and special litter and vacant
lot problems.  The combination of these two variables determine
the level of service in a given neighborhood.  This measure can
be a useful tool for decision-making with respect to improving
existing service and allocating further resources towards
that end.  The study reported herein describes the results
obtained in five selected Durham, N.C. neighborhoods, and
suggests that the City of Durham undertake a solid waste
collection evaluation program similar to the one described
herein.

Order Number:  PB-262 004/5ST     NTIS Prices: PC $5.25/MF $3.00

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## FEDERAL ASSISTANCE PROGRAMS AND ENERGY DEVELOPMENT-IMPACTED MUNICIPALITIES

Wendell Associates, McLean, Va.

This study identifies Federal assistance programs which do or
could provide aid for small communities impacted by major
energy developments.  The objectives have been to identify
those Federal programs which presently offer the types of aid
most required by small communities facing sudden and rapid
growth, especially those designed to build their planning and
administrative capacity or infrastructure.  It is also
intended to analyze other programs of assistance to local
governments to show why they are not presently suitable for use
by these communities, and to indicate what kinds of changes
would be necessary to make them useful to such communities.

Order Number:  PB-265 804/5ST     NTIS Prices:  PC $6.50/MF $3.00

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## TRANSFERRING ENVIRONMENTAL TECHNOLOGY TO LOCAL LEADERS

Oklahoma State Univ., Stillwater

This report covers the first year of a three-year project to
develop and evaluate a system for delivering environmental
research results to local governmental officials and other

community leaders. The system will use the Cooperative
Extension Service as a transfer vehicle. Two problems were
selected and studied this first year. One dealt with the
increasing problem of contaminants in public drinking water
supplies and regulations established to correct this threat
to public health. The second dealt with the 'pros and cons' of
land application of municipal wastewater as a treatment tech-
nique for many communities, especially small rural communities.
The project staff developed and tested a slide-tape package
dealing with the first problem for presentation in each of the
77 counties. Also developed was the second educational package
to help cities and towns comply with the water pollution control
requirements prescribed by Public Law 92-500. It encourages
consideration of land application of municipal wastewaters as
a means of disposal and treatment.

Order Number:  PB-266 838/2ST    NTIS Prices: PC $6.50/MF $3.00

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## TRANSPORTATION SYSTEM MANAGEMENT: STATE-OF-THE-ART

Interplan Corp., Santa Barbara, California.

This report summarizes current information concerning the
spectrum of actions that are relevant to Transportation System
Management (TSM). Under Department of Transportation regula-
tions, urban areas with population greater than 50,000 are
required to develop TSM plans that document their strategy for
improving air quality, conserving energy, and increasing trans-
portation efficiency and mobility through coordinated operation
and management of existing urban transportation facilities and
services. This report presents state-of-the-art information on
31 specific TSM actions within the following seven major
categories:  improving vehicular flow, preferential treatment
of high-occupancy vehicles, reducing peak-period travel,
parking management, promoting non-auto or high-occupancy auto
use, transit and paratransit service improvements, and transit
management efficiency measures. Each summary includes examples
of successful experience, advantages and disadvantages, guideline
conditions concerning implementation, the range of costs involved,
and interrelationships with the other actions.

Order Number: PB-266 953/9ST    NTIS Prices:  PC $9.25/MF $3.00

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## TRAVELER RESPONSE TO TRANSPORTATION SYSTEM CHANGES - A HANDBOOK FOR TRANSPORTATION PLANNERS

Pratt (R. H.) Associates, Inc., Kensington, Md.

Transporation planners and decision-makers need an understanding
of how travelers respond to changes in the urban transportation

system if they are to correctly identify the most favorable
opportunities to maximize beneficial use of highways and
transit operations.  Traveler response to the following 10
types of transportation change are investigated:  pool/bus
priority lanes, variable work hours, carpooling encouragement
activities,buspools/vanpools, area auto restraints, auto facility
pricing, transit scheduling/frequency, bus routing/coverage,
transit fare changes, and transit marketing/amenities.

Order Number:  PB-265 830/0ST     NTIS Prices:  PC $11.00/MF $3.00

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TRANSPORTATION PLANNING AND IMPACT FORECASTING TOOLS

Public Technology, Inc., Washington, D.C.

This is one of eight information bulletins developed for the
Urban Consortium for Technology Initiatives' Transportation
Task Force.  The Consortium is a coalition of 34 major urban
governments, 28 cities and 6 counties, with populations over
500,000.  This bulletin examines new tools, both automated and
manual for transportation planning and analysis.  Specific
emphasis is given to the Urban Transportation Planning Systems
(UTPS) package, its features and its application.  An extensive
list of contacts and an annotated bibliography are provided,
including coverage of transportation planning models, land use
models, and major impact assessments.

Order Number:  PB-263 963/1ST     NTIS Prices: PC $4.50/MF $3.00

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TRAFFIC ENGINEERING SERVICES FOR SMALL POLITICAL JURISDICTIONS

American Public Works Association, Chicago, Ill., Research
Foundation.

The document reviews the status of traffic engineering services
as applied in cities and counties varying in population from
2,500 to 40,000.  The data resulted from questionnaires sent to
to jurisdictions  and one state in each respective FHWA Region.
Alternate methods of providing traffic engineering services
are identified and evaluated in relation to Highway Safety
Program Standard 13 - Traffic Engineering.  Parameters influencing
delivery of services such as cost effectiveness, governmental
relationsips and constraints, community resources, and category
of community are discussed.

Order Number:  PB-264 640/4ST     NTIS Prices: PC $7.25/MF $3.00

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SOCIO-PHYSICAL IMPACT OF THE COMMUNITY BASED SOCIAL AGENCY

Wichita State Univ., Kansas.

A study of the impact of community service agencies on the residents of the neighborhoods in which the agencies are located is documented. Five hypotheses are explored: (1) agency neighborhood residents perceive lower property values resulting from the agency's presence than do residents of neighborhoods with no agencies; (2) agency neighborhood residents' attitudes about agencies are different from attitudes among other residents; (3) attitudes toward agencies are more favorable among residents living near local, neighborhood clientele agencies than among residents living near nonlocal, non-neighborhood clientele agencies more often perceive the agencies as being within the boundaries of their neighborhoods than do residents living near nonlocal, non-neighborhood clientele agencies; and (5) agency neighborhood residents express more favorable attitudes toward such agencies than do other respondents. Data were gathered by mailed questionnaire from three samples: 308 households in three Wichita, Kansas, neighborhoods containing local, neighborhood clientele agencies (73 responses); 276 households in three neighborhoods containing nonlocal, non-neighborhood clientele agencies (98 responses); and a control sample of 970 households (352 responses). Null hypotheses associated with each of the test hypotheses could not be rejected. However, investigation of two theoretical interrogatories showed that respondents living near agencies view the agencies favorably and identify the agencies primarily in terms of the services they provide. Supporting data, a copy of the survey instrument, and a bibliography are provided.

Order Number: SHR-000 1281    NTIS Prices PC $6.00/MF $3.00

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NEW COMMUNITIES:  PROBLEMS AND POTENTIALS

New Communities Administration, Washington, D. C.

The report documents the experience of the first eight years of the Federal new communities assistance program often called the Title VII program. It draws certain conclusions concerning the causes of its difficulties and the extent of its continuing potential for addressing problems of urban growth. The report is based almost entirely on the results of four studies.

Order Number: PB-263 697/5ST    NTIS Prices: PC $6.50/MF $3.00

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HUMAN SERVICES PLANNING AT STATE AND LOCAL LEVELS.  THE DESIGN
OF PLANNING NETWORKS

Texas Univ. at Austin, Center for Social Work Research.

Following a brief review of the historical background of human
services planning in the United States, factors involved in the
1976 expansion of human services planning activities are
described, and ways in which the vertical network of planning
activities has emerged in Texas are examined.  The discussion
of the context of human services planning addresses the concept
of new federalism, State plan requirements, community alter-
natives, public awareness, and the rate of social change.  The
description of the emergence of human services planning networks
notes organizational changes in both State single-purpose agencies
and general-purpose governments.  Key elements in the evolving
networks are identified as the elaboration of technical staff
components at all levels of governemnt and the development of
a pattern of vertical interaction, particularly between local
general-purpose governments and State single-purpose agencies.
The emergence of elaborate vertical intergovernmental human
services networks, as exemplified by trends in the State of
Texas, is said to be the result of two sets of forces:  moves
by State single-purpose agencies to decentralize both program
operations and management functions, and efforts by local
general-purpose governments to combine their forces to achieve
more effective representation in State-level decision-making.
Issues relevant to community planning processes within the
State - local network of human service programs are discussed,
including development of an analytic framework for examining
human service programs within a single community, and spec-
ification of planning authority within the community.

Order Number:  SHR-0000752     NTIS Prices:  PC $5.25/MF $3.00

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MINICOMPUTERS:  AN ALTERNATIVE APPROACH TO MUNICIPAL INFORMATION
SYSTEMS

Boise Center for Urban Research, Idaho.

This document presents the advantages and disadvantages of the
use of minicomputers in management information systems.  As a
result of this research project, Boise City concluded that the
minicomputer approach to managing data has very distinct and
identifiable cost savings over traditional alternatives without
sacrificing efficiency and effectiveness.  Boise City's decision
as a direct result of this research project was to acquire a
minicomputer, accept the risk of the current state of minicomputer
technology as minimal, and to take advantage of the cost savings.

Order Number:  PB-263 775/9ST    NTIS Prices: PC $7.25/MF $3.00

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ECONOMIC DEVELOPMENT THROUGH STATE PLANNING

American Inst. of Planners, Washington, D. C.

The objective of this research project was an accurate assess-
ment of the present patterns and problems of State and local
economic development and planning activities.  The American
Institute of Planners (AIP) developed, circulated, and evaluated
a survey questionnaire to elicit basic administrative information
from all 50 states.  This was followed by intensive interviews
in four case-study states with varying economic and institu-
tional situations (Arizona, Rhode Island, Georgia and Michigan).
Written interviews from various states and the Economic
Development Administration (EDA) were also received.  Finally,
this report-- which summarizes data gathered through the
questionnaire, case studies and other research--was circulated
for review by interested parties in June 1976.  The report is an
assessment of the political, institutional, and procedural
factors as they affect the development and staffing of state
and comprehensive economic development planning.

Order Number: PB-259 241/8ST   NTIS Prices:  PC $5.25/MF $3.00

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LOCAL GOVERNMENT INFORMATION SYSTEMS - A STUDY OF USAC AND THE
FUTURE APPLICATION OF COMPUTER TECHNOLOGY

National Research Council, Washington, D. C., Urban Information
Systems Inter-Agency Committee (USAC) Support Panel.

The report is an assessment of the Urban Information Systems
Inter-Agency Committee (USAC) Program by a USAC Support Panel
established by the National Research Council.  The Support
Panel found widespread use by larger U.S. cities and counties
of computers for routine processing operations.  However, the
potential of computer systems for improving local government
management is not being exploited widely by local government.
The Panel made a detailed study of cost-benefit relationship,
transferability of experience between cities, interfaces
between computer systems, and privacy-security implications.
The Panel made a number of recommendations on the improved
utilization of computer systems by local governments.

Order Number:  PB-264 577/8ST    NTIS Prices:  PC $5.25/MF $3.00

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# AN INFORMATION SYSTEMS RESOURCE CENTER FOR LOCAL GOVERNMENTS

National Research Council, Washington, D.C., Urban Information
Systems Inter-Agency Committee (SAC) Support Panel.

The report describes the mission, organization, programs,
operating principles and priorities of an Information Systems
Resource Center.  The study was conducted by the Urban Infor-
mation Systems Inter-Agency Committee (SAC) Support Panel under
the National Research Council.  The Support Panel recommended
the establishment of a non-profit information systems resource
center.  The Center would provide local governments with
reliable advice on the potential of information systems and keep
them informed on public policy issues related to computer usage.
The Federal Government would provide seed money to get the Center
started, but local government organizations would guide its
policies.

Order Number:  PB-264 643/8ST   NTIS Prices: PC $4.00/MF $3.00

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# LOCAL GOVERNMENT, INFORMATION SYSTEMS, AND TECHNOLOGY TRANSFER. EVALUATING SOME COMMON ASSERTIONS ABOUT TRANSFER OF COMPUTER APPLICATIONS

California Univ., Irvine, Public Policy Research Organization.

The transfer of computer applications among and into city
and county governments is examined through comparison of the
benefits claimed for technology transfer with the actual
experiences of local governments.  Seven common assertions about
technology transfer are considered:  (1) transfer prevents each
government from having to 'reinvent the wheel'; (2) everyone
benefits from transfer; (3) computer applications can be trans-
ferred and adapted for a small fraction of the time and money
needed to develop applications inhouse; (4) transfer makes
needed computer applications available at low costs to all local
governments seeking an advanced state of electronic data
processing development; (6) technical factors, such as lack of
standardized  computer hardware and programming languages, are
major barriers to technology transfer among local governments;
and (7) more transfer would occur if there were a national
clearinghouse and resource center to make information and
computer applications available to local governments.  The claims
about transfer are neither supported nor discredited.  Rather,
perspectives are offered on why more transfers do not occur and,

in some cases, on why they should not occur.  The general
conclusion reached is that transfer is a logical idea and has
substantial benefit, providing everything works correctly.
However, the experiences of cities and counties indicate that
frequently everything does not work correctly.  Implications of
the issues raised are discussed.

Order Number:  SHR-0001559    NTIS Prices:  PC $5.25/MF $3.00

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## EFFECTIVE COMMUNICATION:  THE CITY, THE CITIZENS, THE MEDIA

Durham Urban Observatory, N.C.

This report is an in depth descriptive analysis of the
communications process between the city and citizens in Durham,
North Carolina.  The report consists of four phases.  Phase one
is an analysis of the Durham city officials--what and how they attempt
to communicate with citizens.  Phase two is an analysis of
Durham citizens' attitudes on what is communicated to them by
the city and the procedures they feel are most effective for
informing them.  Phase three is an analysis of the local media's
role, procedures, and input into the communication of the city's
actions and plans.  The final phase is an analysis of the
communication processes of 34 selected cities throughout the
United States.  This phase was done as a means of getting ideas
from other cities and comparing Durham with other cities.  These
four analyses are examined and their implications for communication
policy for Durham are summarized.

Order Number:  PB-265 905/0ST    NTIS Prices:  PC $6.50/MF $3.00

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## CITIZEN COOPERATION WITH THE CRIMINAL JUSTICE SYSTEM

Durham Urban Observatory, N.C.

This volume contains four reports on the quality of the relation-
ship between the police, the criminal courts, and the public in
Durham, North Carolina.  The first two reports are detailed
analyses of two types of serious crime - robbery and burglary.
These reports focus on the role of the citizen as supplier of infor-
mation to the police and the importance of this input in the pro-
duction of arrests.  These two reports also provide a statistical
description of the crimes, the suspects, and the victims for
robbery and burglary in Durham.  The third report evaluates one
aspect of the relationship between Durham Superior Court and the
public - the costs of serving as a witness in a felony case.  The
fourth report presents the findings of a survey study of Durham
patrol officers which dealt with their experiences as witnesses in
Superior Court and their relationships with the prosecutor's office.

Order Number:  PB-261 957/5ST    NTIS Prices: PC $6.00/MF $3.00

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# SPECIAL SOFTWARE FOR LOCAL GOVERNMENTS

## ACCOUNTING/DISBURSING MODULE

PB-240 379/CPU                              $250.00 North American Continent

This tape contains the USAC Municipal Accounting/Disbursing Module for the Dayton, Ohio Integrated Municipal Information System (IMIS). This module is a general accounting system for municipal governments. It maintains a general ledger as well as various subsidiary revenue and expenditure ledgers. Expenditure control is exerted through line appropriations as well as through an encumbrance procedure. Expenditure data is maintained at a PPBS level as well as at the appropriated line account level. There are 25 programs recorded on the tape. Technical documentation describing this module includes:

    PB-231 183   Accounting/Disbursing System Design
    PB-241 655   User Manual (Task 7), Accounting/Disbursing
                     Component
    PB-241 656   Input/Output Manual (Task 7), Accounting/
                     Disbursing Component
    PB-241 657   Operations Manual (Task 7), Acccounting/
                     Disbursing Component

65,536 bytes of core storage, 64 million bytes of disk storage and 3 tape drives are needed to operate this module on the NCR Century-200 computer....Software Description: These programs are written in the NCR COBOL Stage III programming language for implementation on an NCR Century-200 Computer using the NCR B1 operating system, release 8B. The teleprocessing package is NCR B2, release 8B.

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## BUILDING PERMITS PROCESSING MODULE

PB-242 761/CPU                              $250.00 North American Continent

This tape contains the USAC Municipal Building Permits Processing Module for the Charlotte, North Carolina Integrated Municipal Information System (IMIS). This module provides for on-line storage, maintenance, and retrieval of data which is relative to all types of permits issued by the Building Inspection Department. On-line storage is facilitated by four interactive displays, two of which are the primary source for all types of inspection reports. There are 16 programs recorded on the tape. Technical documentation describing this module includes:

    PB-238 564   Building Permits Processing Module
                     Design Specification
    PB-240 161   Building Permits Processing Module
                     Computer Program Description
    PB-239 460   Building Permits Processing User's Manual

270K bytes of core storage and 18M bytes of disk storage are
needed to operate this module on the UNIVAC 70/45-2
computer....Software Description: These programs are written
in UNIVAC series 70 COBOL language for implementation on an
UNIVAC SPECTRA 70/45-2 computer using the UNIVAC TDOS 21.2
operating system. This system is not available on 7-track
magnetic tape.

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## CODE ENFORCEMENT MODULE

PB-243 415/CPU                              $250.00 North American Continent

This tape contains the USAC Municipal Code Enforcement Module
for the Charlotte, North Carolina Integrated Municipal
Information System (IMIS). This module provides municipal
governments with an efficient and effective method for
evaluating, recording and reporting violations of state and
local housing codes. The basic objectives of the module are
to: (1) record and maintain a complete history of each code
enforcement case, (2) establish control procedures for
recording and reporting code violations, (3) provide an on-line
display capability for data collection and retrieval of case
history information, (4) generate management summary and
statistical reports reflecting case activity by street address,
geographic area and employee, (5) provide key information
required for reporting housing activities of municipal
governments to the Federal Urban Housing Development Agency.
This module provides for the storage and retrieval of data in
such a way as to give the user continuity regarding each case.
There are six programs recorded on the tape. Technical
documentation describing this module includes:

    PB-242 862   Code Enforcement Module Design Specification
    PB-245 895   Code Enforcement Module Computer Program
    PB-247 660   Code Enforcement Module User's Manual

1.4M bytes of core storage and 15.8M bytes of disk storage are
needed to operate this module on a Burroughs 6700
Computer....Software Description: These programs are written
in the Burroughs COBOL programming language for implementation
on the Burroughs Model 6700 computer using the Burroughs MCP
operating system, release 2.7. The teleprocessing package is
the Burroughs Generalized MCS. The Data Base Management System
is the Burroughs DMS II. This system is available on 9-track
magnetic tape only.

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## DATA DICTIONARY SYSTEM MODULE

PB-252 215/CPU                      $250.00 North American Continent

This tape contains the USAC Data Dictionary System Module for the Wichita Falls, Texas Integrated Municipal Information System (IMIS). The functions of this module are: (1) to provide a method by which all design analysts must define data elements, thereby providing all others with detail information about every data element in the data base; (2) to provide documentation for municipal users for determining exactly what data is available in the data base and where it is located; (3) to provide documentation that may be used by other cities in determining what data is required to establish a similar IMIS; (4) to provide an accurate method by which logical groups of data records may be defined; (5) to provide the facility that will allow changes to the data base contents without creating a need to change existing application program coding; (6) to make data element names meaningful throughout the data base; (7) to streamline the method of communication betweeen the design analysts and the data base designer, thereby restricting the proliferation of logical record definition; (8) to facilitate data access and data editing because of the reduction in the number of different logical record definitions. There are 11 programs and 11 subroutines recorded on the tape. 256K bytes of core storage and 5M bytes of disk storage are needed to operate this module. Technical documentation describing this module includes:

    PB-243 307   Geographic Based Index System
    PB-234 988   Data Entry System Application Completion
                 Report
    PB-223 581   Data Dictionary Application Completion
                 Report

Software Description: The programs and subroutines are written in the ANS 3 3.2 COBOL and ALC programming languages, respectively. They have been implemented on an IBM system 370/145 computer using the DOS VS 29 operating system. The Data Entry System is also needed for successful operation of this module. The proprietary IBM Teleprocessing package, C CS, is also needed for successful implementation.

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## DATA ENTRY SYSTEM

PB-254 855/CPU                      $250.00 North American Continent

This tape contains the USAC Municipal Data Entry Module for the Wichita Falls, Texas Integrated Municipal Information System (IMIS). This module is designed to operate in an on-line mode under the control of Disk Operating System/Customer Information

Control System (DOS/CICS). Its primary functions are: on-line entry of all data; on-line correction of all data; facility for communication between on-line and off-line processing; and control of transactions which are entered in a batched mode. There are 36 programs and 33 subroutines recorded on the tape. 256K bytes of core storage and 5M bytes of disk storage are needed to operate this module. Technical documentation describing this module includes:

    PB-227 709   Geographic Based Index System
    PB-234 988   Data Entry System Application Completion
                 Report

Software Description: The programs are written in the ALC and COBOL programming languages. The subroutines are written in ALC. These programs have been implemented on an IBM 370/145 computer using the DOS VS Release 29 operating system. The proprietary IBM Teleprocessing package, CICS, is needed to successfully implement this module. Can be safely copied onto 7-track even parity tape without loss of data.

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## DATA MANAGEMENT TECHNIQUE MODULE

PB-243 453/CPU                          $250.00 North American Continent

This tape contains the USAC Municipal Data Management Technique Module (DMT) for the Reading, Pennsylvania Integrated Municipal Information System (IMIS). Information on the tape includes the source code for existing root logic sets, linkage logic sets (APPLINK, SYSLINK), and all internal and integral services developed and implemented in Reading, PA, under the auspices of USAC. In addition, two sample job control streams are offered for guidance in the development and operation of this code as a system network (Data Management Technique) in a candidate city. 32K bytes of core storage and 32M bytes of disk storage are needed to operate this module on a UNIVAC Model 9300 II. Technical documentation describing this module includes:

    PB-245 893   Integrated Management Information System
                 and a Small City

Software Description: These programs are written in COBOL for implementation on a UNIVAC Model 9300 II computer using the UNIVAC OS5ØØ DNCOS Rev. 4 operating system. The data base management system software package is the Reading DMT, version 1, release 1, level 1.

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## PURCHASING MODULE

PB-240 374/CPU                    $250.00 North American Continent

This tape contains the USAC Municipal Purchasing Module for the Dayton, Ohio Integrated Municipal Information System (IMIS). The purpose of the purchasing component is to process encumbrance documents, maintain a file of open encumbrances, and generate encumbrance transactions for the accounting/disbursing component. There are three programs recorded on the tape. Technical documentation describing this module includes:

       PB-223 561   Purchasing Systems Design
       PB-241 558   User Manual (Task 7), Purchasing Component
       PB-241 557   Input/Output Manual (Task 7), Purchasing
                       Component
       PB-241 559   Operations Manual (Task 7), Purchasing
                       Component
65,536 bytes of core storage, 64M bytes of disk storage and three tape drives are needed to operate this module on the NCR Century-200 computer....Software Description: The programs are written in the COBOL programming language for implementation on a NCR Century-200 computer using the NCR B1 operating system (release 8B). The teleprocessing system is NCR B2 (release 8B).

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## PURCHASING ORDER PROCESSING SYSTEM (POPS)

PB-250 761/CPU                    $250.00 North American Continent

This tape contains the USAC Purchase Order Processing System Module for the Wichita Falls, Texas Integrated Municipal Information System (IMIS). This module, which includes the Payment Authorization and Travel Voucher System, constitutes the payable component of the program, Cost Accounting and Budgeting System (PCABS). The purpose of this module is to account for all expenditures made by the city for the procurement of goods or services, excluding payroll expenditures. There are 48 COBOL programs and 27 COBOL subroutines recorded on this tape. 256K bytes of core storage and 5M bytes of disk storage are needed to operate this module on an IBM Model 370/145 computer. Technical documentation describing this module includes:

       PB-227 709   Geographic Based Index System
       PB-234 988   Data Entry System Application Completion
                       Report
       PB-236 775 &
       PB-236 776   Purchasing and Payables Report, Volumes
                       I and II, respectively

Software Description: These programs are written in the COBOL
programming language for implementation on an IBM Model 370/145
computer using the DOS Version 29 operating system. The Data
Entry System is needed to implement this module.

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## RELOCATION SERVICES MODULE

PB-240 382/CPU                    $250.00 North American Continent

This tape contains the USAC Municipal Relocation Services
Module for the Charlotte, North Carolina Integrated Municipal
Information System (IMIS). The relocation services module has
been developed to facilitate the relocation of active displacee
clients of the City's Redevelopment Commission. Data on
available resources to which the displacee may be referred and
subsequently relocated are also collected and updated
periodically. Once a displacee's housing requirements are
determined, data on available resources are aggregated and a
listing of resources which accommodate the displacee's specific
needs is compiled. This listing is used by relocation staff
members in referring the displacee to available resources.
Other reports are generated to support the operational and
administrative requirements of the relocation staff as well as
to meet HUD reporting requirements. 270K bytes of core storage
and 2.5M bytes of disk storage are needed to operate this
module on the UNIVAC 70/45-2 computer. There are 16 programs
recorded on the tape. Technical documentation describing this
module includes:

        PB-242 090   Relocation Services Module Design
                        Specification
        PB-242 896   Relocation Service Module Computer
                        Program Descriptions
        PB-241 162   IMIS Relocation Services User's Manual

Software Description: These programs are written in the COBOL
programming language for implementation on a UNIVAC 70/45-2
computer using the UNIVAC TDOS 21.18 operating system. The
teleprocesing package is the UNIVAC IPSTCP 14. The Data Base
Management System software package is UNIVAC IPSDCP 1.0.

This system is available on 9-track magnetic tape only.

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## RESOURCE MANAGEMENT MODULE

PB-240 376/CPU                          $250.00 North American Continent

This tape contains the USAC Municipal Resource Management Module for the Dayton, Ohio Integrated Municipal Information System (IMIS). The purpose of this module is to provide cost data for the evaluation of personnel management alternatives, predominantly in the areas of labor relations management and budget formulation. This cost data includes historical, current, and forecasted personnel wage, fringe benefit, and non-productive time information. There are 11 programs recorded on the tape. 65,536 bytes of core storage, 64M bytes of disk storage and three tape drives are required to operate this module on the NCR Century-200 computer. Technical documentation describing this module includes:

    PB-236 919    Systems Design Resource Management
                       Component, Volume 10
    PB-241 662    User Manual (Task 7), Resource Management
                       Component
    PB-241 663    Input/Output Manual (Task 7), Resource
                       Management Component
    PB-241 664    Operations Manual (Task 7), Resource
                       Management Component

Software Description: The programs are written in the NCR COBOL Stage II programming language for implementation on an NCR Century-200 computer using the NCR B1 operating system release 8B. The teleprocessing system is NCR B2 release 8B.

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## SEWER AND WATER ACCOUNTS PROCESSING MODULE

PB-242 407/CPU                          $250.00 North American Continent

This tape contains the USAC Municipal Sewer and Water Accounts Processing (SWAP) Module for the Reading, Pennsylvania Integrated Municipal Information System (IMIS). This module maintains records for 29,000 water and sewer customers, posts meter readings and calculates periodic consumption, produces water and sewer bills, posts bill payments, and provides reports to the users of the system. There are 11 programs recorded on the tape. 32K bytes of core storage and 32M bytes of disk storage are needed to operate this module on a UNIVAC Model 9300 II computer. Technical documentation describing this module includes:

    PB-236 976    Design Spedifications for the Sewer and Water
                       Accounts Processing Module
    PB-247 661    Program Specification for the Sewer and Water
                       Accounts Processing Module

PB-251 898   The Sewer and Water Accounts Processing
Module User's Manual

Software Description: These programs are written in COBOL for
implementation on a UNIVAC Model 9300 II computer using the
UNIVAC OS5ØØ NCOS Rev. 4 operating system. The Data Base
Management System is the Reading DMT version 1, release 1,
level 1.

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## SPECIAL ASSESSMENTS MODULE

PB-252 217/CPU                    $250.00 North American Continent

This tape contains the USAC Special Assessments Module for the
Wichita Falls, Texas Integrated Municipal Information System
(IMIS). The primary objective of this module is to provide an
efficient and effective technique, at a single point, for the
process and control of information associated with the
assessment procedure. To accomplish this, the system has been
structured into two distinct, yet interrelated components: (1)
billing and remittance and (2) file maintenance. There are
eight programs, six subroutines and two coding structures
recorded on the tape. 256K bytes of core storage and 5M bytes
of disk storage are needed to implement this program.
Technical documentation describing this module includes:

    PB-234 989   Special Assessments Application Completion
                    Report
    PB-243 307   Geographic Based Index System
    PB-234 988   Data Entry System Application Completion
                    Report

Software Description: The programs are written in the ANS 3
3.2 COBOL programming language; the subroutines and the coding
structures are written in the ALC programming language for
implementation on an IBM 370/145 computer using the DOS VS
operating system. The data entry system is also needed for
implementating this module. The proprietary IBM teleprocessing
package, CICS, is also needed for successful implementation.

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## STANDARD PERMIT PROCESSING MODULE

PB-242 319/CPU                    $250.00 North American Continent

This tape contains the USAC Municipal Standard Permit
Processing Module for the Reading, Pennsylvania Integrated
Municipal Information System (IMIS). This module regulates the
processing of permits, inspections, appeal procedures and
reports by enhancing the reporting capabilities of the code

services bureau. It also provides data regarding change in property value to the property assessment module. There are five programs recorded on the tape. Technical documentation describing this module includes:

    PB-238 264   Design Specifications for the Standard Permit
                 Processing Module
    PB-241 443   Program Specification for the Standard Permit
                 Processing Module
    PB-251 850   The User's Manual for the Standard Permit
                 Processing Module

32K bytes of core storage and 32M bytes of disk storage are required to operate this module on a UNIVAC 9300 Model II computer. Software Description: These programs are written in UNIVAC 9300 MODEL II COBOL programming language for implementation on a UNIVAC 9300 Model II computer using UNIVAC OS5ØØ DNOS Rev. 4 operating system. The Data Base Management System is Reading DMT version 1, release 1, level 1.

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## SYSTEM LEVEL SOFTWARE MODULE

PB-240 380/CPU                          $250.00 North American Continent

This tape contains the USAC Municipal System Level Software Module for the Charlotte, North Carolina Integrated Municipal Information System (IMIS). This module provides a vehicle by which various applications modules may interact with on-line terminals and data bases utilizing the capabilities of the Burroughs B2761 computer system. The system level software provides capabilities to allow the police system to interface with the city's main computer system. System level software concerns itself with two main areas: data communications and data base maintenance. In the data communications area, care is given to logging, queuing, passing transactions to and from application programs and providing for system recovery. In the data management area, care is given to data integrity, file maintenance, and backup capability. There are six programs recorded on the tape. Technical documentation describing this system includes:

    PB-243 451   System Level Software Design Specification
    PB-241 617   System Level Software Program Descriptions
    PB-240 165   System Level Software User's Manual

60K bytes of core storage and 5M bytes of disk storage are needed to operate these programs....Software Description: These programs are written in a variety of programming languages, the network-definition language (2.7) which is a macro language using COBOL and assembler constructs, the file-organization techniques (1-1) which is a macro language using

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COBOL constructs, and finally the Burroughs 2700 COBOL language, version 5.4. All programs are written to operate under the Burroughs 2761-MCPV 5.4 operating system. The teleprocessing package is Burroughs Network Definition Language 2.7. This system is available on 9-track magnetic tape only.

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## SYSTEM STATUS SUMMARY MODULE

PB-252 218/CPU                          $250.00 North American Continent

This tape contains the USAC System Status Summary Module for the Wichita Falls, Texas Integrated Municipal Information System (IMIS). The primary objective of this module is to provide accurate and up-to-date information to management and team leaders regarding time expended on each application during development and maintenance. The module is able to satisfy this objective by (1) editing various fields such as job code, hours per month, and task code against predetermined tables; (2) using cost code tables to calculate monetary values for hours worked at job code level; (3) building and updating a master file which lists both the monthly and total hours expended on specific applications and includes monetary value of the time expended; and (4) building a master file. There are six programs, two subroutines and nine coding structures recorded on the tape. 256K for successful implementation of this module on an IBM 370/145 computer using the DOS VS 29 operating system. The proprietary teleprocessing package, IBM CICS 1 (.2) DOS VS 29 and the Data Entry System Module are also needed for implementation on IBM 370/145. Technical documentation describing this module includes:

> PB-243 307   Geographic Based Index System
> PB-234 988   Data Entry System Application Completion
>                  Report
> PB-242 043   Systems Status Report Application
>                  Completion Report
> PB-223 150   Systems Design Technical Guide Line

Software Description: The programs are written in the IBM ANS 3 3.2 COBOL programming language. The subroutines and coding structures are written in the ALC programming language.

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## TELECOMMUNICATIONS/DATA MANAGEMENT SYSTEM (TCDMS)

PB-260 862/CPU                    $450.00 North American Continent

This tape contains Release #2 of the USAC Municipal Telecommunication/Data Management System (TCDMS) module of the Lane County Integrated Municipal Information System (IMIS). Release #2 supersedes Release #1. Release #2 contains a significantly enhanced telecommunications system and also contains the Data Management System. The purpose of this module is to act as an interface between the IBM computer operating system and application programmers and/or terminal operators. It consists of two major components: (1) a set of telecommunications modules which control the processing of all transactions through the TCDMS network of terminals, and (2) a set of data management modules which control placement, manipulation, and retrieval of the information stored in the TCDMS integrated data base. The functional units are configured at SYSGEN time to provide a system tailored to meet the specific requirements of each installation. TCDMS is oriented toward the convenience of application programmers and terminal operators using the system. The TCDMS application programmer utilizes the facilities of the system in a manner consistent with the coding conventions of his programming language. TCDMS functions are invoked at the CALL or MACRO level of the host language, BAL, COBOL, FORTRAN or PL/1. There are 783 programs written on the tape. Technical documentation describing this module includes:

            PB-251 073    TCDMS System summary
            PB-251 896    TCDMS Application Programmer's Manual (BAL)
            PB-251 897    TCDMS Application Programmer's Manual (COBOL)
            PB-241 448    TCDMS Application Programmer's Manual (FORTRAN)
            PB-241 444    TCDMS User's Utilities Manual
            PB-241 447    TCDMS Operations Manual
            PB-251 133    TCDMS System Programmer's Manual, Volume I
            PB-251 134    TCDMS System Programmer's Manual, Volume II
            PB-250 993    TCDMS Messages and Codes Manual (Data Management)
            PB-251 886    TCDMS Detail Design Initial Task Completion
            PB-251 887    TCDMS Detail Design Initial Task Completion
                             Report, Volume II, Data Management
                             Component
                             Report, Volume I
            PB-250 995    TCDMS Application Programmer's Manual (Data
                             Management Section)
            PB-233 730    TCDMS Concepts and Facilities Manual
            PB-233 731    TCDMS Conceptual Design:  Initial Task
                             Completion Report for the Telecommuni-
                             cations Data Management System
            PB-242 241    TCDMS Development Initial Task Completion
                             Report
            PB-251 346    TCDMS Messages and Codes (Telecommunications)

PB-251 896   TCDMS Application Programmer's Manual
                     Assembler Language.  A Reference Guide
                     for TCDMS Application Programmers Coding
                     in IBM System 360/70 OS and VS Assembler
                     Language
        PB-250 994   TCDMS Final Project Report

256K bytes of core storage and 25M bytes of disk storage are
needed to operate this module on an IBM 360/370
computer....Software Description:  These programs are written
in the IBM Basic Assembler Language for implementation on an
IBM 370 Model 158 computer using the OS or the VS1 release 3.1
operating system.

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## TRAFFIC ACCIDENT RECORDING MODULE

PB-243 456/CPU                        $250.00 North American Continent

This tape contains the USAC Municipal Traffic Accident
Recording Module for the Reading, Pennsylvania Integrated
Municipal Information System (IMIS).  This module processes
information collected on traffic accident reporting forms and
assembles this data into accident history files which comprise
a portion of the system data base.  This information can then
be retrieved to produce periodic (monthly and yearly) reports.
This module also has the facility to query the accident portion
of the system data base for any accidents meeting optional
search parameter criteria.  Its services, while available to
all departments within city government, were designed around
requirements supplied by the Traffic Law Enforcement Division
of the Reading Bureau of Police.  There are eight programs
recorded on the tape.  Technical documentation describing this
module includes:

        PB-237 258   Design Specifications for the Traffic
                     Accident Recording Module
        Pb-238 266   Program Specifications for the Traffic
                     Accident Recording Module
        PB-244 374   The Traffic Accident Recording Module
                     User's Manual

32K bytes of core storage and 32M bytes of disk storage are
needed to operate this module on a UNIVAC Model 9300 II
computer....Software Description:  These programs are written
in the UNIVAC 9300 II COBOL programming language for
implementation on a UNIVAC Model 9300 II computer using the
UNIVAC OS5ØØ DNCOS operating system.  The Reading Data Base
Management System is also used to implement this module.

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## TRAFFIC CONTROL DEVICE MODULE

PB-240 490/CPU                    $250.00 North American Continent

This tape contains the USAC Municipal Traffic Control Device Inventory Module for the Charlotte, North Carolina Integrated Municipal Information System (IMIS). This module provides municipal governments with a system for maintaining an inventory by location of all traffic control devices and pavement markings within the municipality. It provides for the on-line storage and retrieval of inventory and associated maintenance data through utilization of the street segment portion of the geographic data index file. The principal objective is to provide information to the Traffic Control Division for (1) scheduling the installation of new control devices, (2) scheduling the replacement or maintenance of existing devices, and (3) scheduling maintenance activities concerned with pavement markings. There are six programs recorded on the tape. Technical documentation describing this module includes:

    PB-239 459  Traffic Control Device Inventory Module Design
                    Specification
    PB-242 039  Traffic Control Device Inventory User's Manual
    PB-242 088  Traffic Control Device Inventory Module Computer
                    Program Descriptions

270K bytes of core storage and 79,200 bytes of disk storage are needed to operate this module on a UNIVAC 70/45-2 computer....Software Description: These programs are written in the UNIVAC Series 70 COBOL programming language for implementation on a UNIVAC 70/45-2 computer using the UNIVAC TDOS 21.18 operating system. The teleprocessing package is UNIVAC IPSTCP 14. The Data Base Management System is UNIVAC IPSDCP 1.0. This system is available on 9-track magnetic tape only.

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## TREASURY MANAGEMENT MODULE

PB-240 373/CPU                    $250.00 North American Continent

This tape contains the USAC Municipal Treasury Management Module for the Dayton, Ohio Integrated Municipal Information System (IMIS). The Treasury Management component is designed to record current municipal cash flow information, project the city's short term cash flow, and assist in regulating the city's investment program to obtain the maximum return with minimal risk. There are 11 COBOL programs recorded on the tape. Essential documentation includes:

```
PB-222 968  Treasury Management System Design
PB-241 650  Treasury Management User's Manual
PB-242 037  Treasury Management I/O Manual
PB-241 651  Treasury Management Operations Manual
PB-241 560  Systems Design (Task 3) Report (V. 7),
              Taxation Component
```

65,536 bytes of core storage, 64M bytes of disk storage and three tape drives are needed to operate this module on the NCR Century-200 computer....Software Description: These programs are written in the COBOL programming language for implementation on an NCR Century-200 computer using the NCR B1 operating system, release 8B. The teleprocessing package is NCR B2, release 8B.

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## UTILITY BILLING MODULE

PB-240 378/CPU                    $250.00 North American Continent

This tape contains the USAC Municipal Utility Billing Module for the Dayton, Ohio Integrated Municipal Module. It is designed to assist in the collection of monies in compensation for water and sewer services. The module issues utility bills, posts payments and refunds, controls delinquent accounts, and assists in the handling of customer service requests. There are 16 programs recorded on the tape requests. Technical documentation describing this module includes:

```
PB-236 918  Utility Billing System Design
PB-241 658  Utility Billing User's Manual
PB-241 659  Utility Billing Input/Output Manual
PB-241 696  Utility Billing Operations Manual
```

65,536 bytes of core storage, 64M bytes of disk storage and three tape drives are needed to operate this module on an NCR Century-200 computer....Software Description: Thesee programs are written in the NCR COBOL Stage III programming language for implementation on an NCR Century-200 computer using the NCR B1 operating system release 8B. The teleprocessing package is NCR B2, release 8B.

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## VEHICLE MAINTENANCE SYSTEM MODULE

PB-250 762/CPU                    $250.00 North American Continent

This tape contains the USAC Vehicle Maintenance System Module for the Wichita Falls, Texas Integrated Municipal Information System (IMIS). This module was designed to provide the city's central garage with more accurate information to aid in

management and operation decisions concerning the city's rolling equipment. Included is implementation of an automated preventive maintenance subsystem to reduce non-scheduled workload and identification of capital costs and high operating cost areas. There are six defined components within the system: (1) Data Capture; (2) Cost Analysis; (3) Utilization Analysis; (4) Replacement Analysis; (5) Preventive Scheduling; (6) File Maintenance. There are 32 programs and nine subroutines recorded on this tape. 256K bytes of core storage and 5M bytes of disk storage are needed to operate this module on an IBM Model 370/145 computer. Technical documentation describing this module includes:

    PB-243 307   Geographic Based Index System
    PB-234 988   Data Entry System Application Completion
                    Report
    PB-236 903   Vehicle Maintenance System Application
                    Completion Report

Software Description: These programs are written in the FORTRAN and COBOL programming languages for implementation on an IBM Model 370/145 computer using the DOS Version 29 operating system. The Data Entry System is needed to implement this module.

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## VEHICLE MANAGEMENT MODULE

PB-242 408/CPU                          $250.00 North American Continent

This tape contains the USAC Municipal Vehicle Management Module for the Reading, Pennsylvania Integrated Municipal Information System (IMIS). The programs included on this tape produce from input cards a fuel consumption report. The cards are edited and then used as input to the program that produces a report by vehicle within bureau showing fuel consumed during the reporting period. Totals are produced by vehicle by bureau and by fuel distribution point. There are two programs recorded on the tape. 32K bytes of core storage are needed to operate this module on a UNIVAC Model 9300 II computer. Technical documentation describing this module includes:

    PB-239 389   Design Specification for the Vehicle Manage-
                    ment Module
    PB-242 038   Program Specification for the Vehicle
                    Management Module

Software Description: These programs are written in COBOL for implementation on a UNIVAC Model 9300 II computer using the UNIVAC OS500 DNCOS revision 4 operating system. The Data Base Management System is the Reading DMT version 1, release 1, level 1.

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## WATER UTILITY PROCESSING SYSTEM MODULE

PB-253 640/CPU                      $250.00 North American Continent

This tape contains the USAC Water Utility Processing System Module for the Wichita Falls, Texas Integrated Municipal Information System. The purpose of the module is to determine the cost of water, sewer, refuse and assessment services provided, to bill each customer for the amount due and to collect payment on each account. The system's four components, which involve both batch and on-line processing are: (1) meter reading component, (2) billing and remittance component, (3) service change order component, and (4) customer inquiry component. There are 64 programs, 20 subroutines, and eight coding structures recorded on the tape. 256K bytes of core storage and 5M bytes of disk storage are needed to operate this module. Technical documentation describing this module includes:

> PB-247 781   Water Utility Application Completion Report
>              Volume I
> PB-247 782   Water Utility Application Completion Report
>              Volume II
> PB-249 827   Water Utility Processing System Application
>              Evaluation Report

Related documentation needed for implementation includes:

> PB-227 709   Geographic Based Index System Manual
> PB-234 988   Data Entry System Application Completion
>              Report

Software Description: The programs are written in the IBM ANS 3 3.2 COBOL programming language while the subroutines and coding structures are written in the Assembly Language Code. These programs are written for implementation on an IBM 370/145 computer using the DOS VS 29 operating system. The Data Entry System Module and the Proprietary IBM CICS Teleprocessing package are needed for the successful implementation of this module.

------------------------------------------------

# MAIL ORDER TO:

## NTIS

National Technical Information Service
**U.S. DEPARTMENT OF COMMERCE**
Springfield, Va. 22161
(703) 557–4650 TELEX 89–9405

Date _____

**PURCHASER:**     Telephone: _____

**SHIP TO:**

(Enter if different from address above)

Name _____

Organization _____

Address _____

City, State, ZIP _____

Attention: _____

## METHOD OF PAYMENT

□ Charge my NTIS deposit account no. _____
□ Purchase order no. _____
□ Check enclosed for $ _____
□ Ship & Bill. See reverse (not applicable outside North America).
□ Charge to my American Express Card account number

[ | | | | | | | | | | | | | | ]

Card expiration date _____

Signature _____

# Order Options

Normal delivery time takes three to five weeks. It is vital that you order by number or your order will be manually filled, insuring a delay. You can opt for *airmail delivery* for a $2.00 charge per item. Just check the *Airmail* Service box. If you're really pressed for time, call the NTIS Rush Handling Service. (703) 557–4700. For a $10.00 charge per item your order will be airmailed within 48 hours. Or, you can pick up your order in the Washington Information Center & Bookstore or at our Springfield Operations Center within 24 hours for a $6.00 per item charge.

| ITEM NUMBER ** | USER ROUTING CODE | Quantity | | | UNIT** PRICE | AIRMAIL* SERVICES | TOTAL PRICE |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | | Paper Copy | Micro-fiche | Other (specify) | | | |
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**Grand Total**

**ORDERING MAGNETIC TAPE:**
(check mode)

□ 7 track     □ 200 BPI     □ odd parity     □ 9 track     □ 1600 BPI
              □ 556 BPI     □ even parity                   □ 800 BPI     (odd parity)
              □ 800 BPI

* Add $2.00 per item for First Class Delivery in North America;
  Add $3.00 per item for Airmail Delivery outside North America.
** ALL PRICES SUBJECT TO CHANGE.